

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A hollow cathode sputtering target ~~having~~ comprising an inner bottom face ~~with~~ that forms a non-erosion portion of the hollow cathode sputtering target and a cylindrical inner peripheral face that forms an erosion portion of the hollow cathode sputtering target, a surface roughness (Ra) of said inner bottom face of said non-erosion portion of the hollow cathode sputtering target being $Ra \leq 1.0\mu\text{m}$ and being equal to or less than a surface roughness (Ra) of said cylindrical inner peripheral face of said erosion portion of the hollow cathode sputtering target.

Claims 2-6 (canceled).

Claim 7 (currently amended): A surface finishing method of a hollow cathode sputtering target comprising the steps of polishing and etching an inner bottom face of the target that forms a non-erosion portion of the hollow cathode sputtering target so as to make the surface roughness (Ra) of the inner bottom face $Ra \leq 1.0\mu\text{m}$ and equal to or less than a surface roughness (Ra) of a cylindrical inner peripheral face of the hollow cathode sputtering target that forms an erosion portion of the hollow cathode sputtering target.

Claim 8 (canceled).

Claim 9 (currently amended): A hollow cathode sputtering target according to claim 1, wherein said surface roughness of said inner bottom face of said non-erosion portion of the hollow cathode sputtering target is $Ra \leq 0.5 \mu m$.

Claim 10 (canceled).

Claim 11 (currently amended): A hollow cathode sputtering target according to claim [10] 9, wherein said target has an outer peripheral edge with a rough face and wherein said outer peripheral edge forms part of said non-erosion portion of the hollow cathode sputtering target.

Claim 12 (previously presented): A hollow cathode sputtering target according to claim 11, wherein said rough face of said outer peripheral edge is an abrasive blasted face.

Claim 13 (previously presented): A hollow cathode sputtering target according to claim 12, wherein said hollow cathode sputtering target is formed from a cladding material.

Claims 14-15 (canceled).

Claim 16 (currently amended): A hollow cathode sputtering target according to claim [15] 1, wherein said target has an outer peripheral edge with a rough face and wherein said outer peripheral edge forms part of said non-erosion portion of the hollow cathode sputtering target.

Claim 17 (previously presented): A hollow cathode sputtering target according to claim 16, wherein said rough face of said outer peripheral edge is an abrasive blasted face.

Claim 18 (previously presented): A hollow cathode sputtering target according to claim 17, wherein said hollow cathode sputtering target is formed from a cladding material.

Claims 19-21 (canceled).

Claim 22 (previously presented): A hollow cathode sputtering target according to claim 1, wherein said hollow cathode sputtering target is formed from a cladding material.

Claim 23 (canceled).

Claim 24 (currently amended): A method according to claim 7, wherein said surface roughness of said inner bottom face is made to be $Ra \leq 0.5 \mu\text{m}$ during said polishing and etching step.

Claims 25-26 (canceled)

Claim 27 (new): A hollow cathode sputtering target, comprising:

a cup-shaped body having an inner peripheral surface defining a hollow cavity within the cup-shaped body and an outer peripheral surface on an exterior of said cup-shaped body, said inner peripheral surface being a sputtering face of said cup-shaped body and said outer peripheral face being a non-erosion face;

said inner peripheral surface including a cylindrical peripheral face, a bottom face, and a curved face defining a boundary between said cylindrical face

and said bottom face, said cylindrical peripheral face forming an erosion area of said sputtering face that is eroded during a sputtering operation when a high density plasma is generated within the hollow cavity of the cup-shaped body, and said bottom face forming a non-erosion portion of said cup-shaped body;

a surface roughness (Ra) of said bottom face being $Ra \leq 1.0 \mu\text{m}$ and being equal to or less than a surface roughness (Ra) of said cylindrical inner peripheral face.

Claim 28 (new): A hollow cathode sputtering target according to claim 27, wherein said surface roughness of said bottom face is $Ra \leq 0.5 \mu\text{m}$.

Claim 29 (new): A hollow cathode sputtering target according to claim 27 wherein said cup-shaped body is made of titanium (Ti).

Claim 30 (new): A hollow cathode sputtering target according to claim 27 wherein said cup-shaped body is made of tantalum (Ta).